Dietary nitrate and sports performance

Propositions
Belonging to the thesis entitled

Dietary nitrate and sports performance

1. Nitrate-rich vegetables and beetroot juice are effective nitrate supplements and lower blood pressure to a greater extent than sodium nitrate. (this thesis)

2. Habitual dietary nitrate intake cannot explain the proposed blunted effect of nitrate supplementation in highly trained athletes. (this thesis)

3. Plasma nitrate and nitrite concentrations at baseline and the increase following nitrate supplementation do not differ between recreational, competitive and elite athletes. (this thesis)

4. A higher post-prandial rise in plasma nitrate concentration following nitrate supplementation does not predict a greater physiological response. (this thesis)

5. Research in elite athletes will always be underpowered as elite athletes, by definition, are scarce.

6. The identification of (non)responders to any type of intervention should be based on repetitive testing in the same individual. (Hecksteden et al, J Appl Physiol, 2018)

7. Nitrate supplementation is likely most relevant to athletes in sports characterized by high-intensity and intermittent-type exercise.

8. Even a small (non-significant) effect could be of great relevance to an elite athlete, as a minimal increase in speed or strength could be the difference between winning or losing. (Jones et al, Sports Med 2014)

9. "In fact, a great diet cannot make an average athlete elite, but a poor diet can make an elite athlete average." (Ron Maughan)

10. Sports nutrition recommendations are useless if not targeted at sport-specific exercise conditions and characteristics of the individual athlete.

11. "As I already use beetroot juice, I don't want to test whether the performance enhancement is only a placebo effect." (quote Olympic speed skater)

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